WHAT IS CLAIMED IS:

1. A method for reducing the creation of dioxins during the burning of a biomass containing a contaminant, wherein said contaminant is solvated or neutralized in the presence of a corresponding solvent, comprising the steps of:

a) prior to said burning of said biomass, conveying said biomass and said solvent into a biomass washing means,

b) washing said biomass in said solvent in said washing means,

c) once at least a portion of said contaminant has been washed from said biomass, conveying said biomass from said washing means and into a biomass burner, and conveying said solvent from said washing means.

2. The method of claim 1 wherein said biomass is hog fuel, said contaminant is salt, and said solvent is water, said method further comprising the step of supplying water to said washing means by diverting an effluent stream of heated waste water so that said heated waste water provides said solvent, whereby salt is no longer passed into said burner, and wherein stack gas precipitators collecting said particulate solids operate at lower loadings as said salt is diverted from them so as to improved combustor operations.

3. The method of claim 2 wherein said heated waste water is supplied into said washing means at a first temperature and wherein said biomass is fed into said washing means at a second temperature, and wherein said first temperature is higher than said second temperature so that said biomass cools said waste water in said washing means, whereby reduction in energy consumption in pulp and paper mills and biomass

processors is achieved through warming of incoming fuel by recovery of waste heat from said effluent stream.

4. The method of claim 1 wherein said washing means is a counter-current extractor and wherein said washing includes counter-current intermingling of said solvent with said biomass.

5. The method of claim 2 wherein said washing means is a counter-current extractor and wherein said washing includes counter-current intermingling of said solvent with said biomass.

6. The method of claim 3 wherein said washing means is a counter-current extractor and wherein said washing includes counter-current intermingling of said solvent with said biomass.

7. The method of claim 2 wherein said diverting of said heated waste water is diverting of heated waster water as diverted effluent from effluent from a pulp or paper mill, and wherein said pulp or paper mill is the mill in which said biomass is to be burned, so that said diverted effluent is cooled before being disposed of in a disposal step.

8. The method of claim 3 wherein said diverting of said heated waste water is diverting of heated waster water as diverted effluent from effluent from a pulp or paper mill, and wherein said pulp or paper mill is the mill in which said biomass is to be burned, so that said diverted effluent is cooled before being disposed of in a disposal step.

9. The method of claim 4 wherein said diverting of said heated waste water is diverting of heated waster water as diverted effluent from effluent from a pulp or paper mill, and wherein said pulp or paper mill is the mill in which said biomass is to be burned, so that said diverted effluent is cooled before being disposed of in a disposal step.

10. The method of claim 7 wherein said disposal step is the disposal of said effluent, once cooled, into the ocean.

11. The method of claim 8 wherein said disposal step is the disposal of said effluent, once cooled, into the ocean.

12. The method of claim 9 wherein said disposal step is the disposal of said effluent, once cooled, into the ocean.

13. The method of claim 4 further comprising the step of providing a screw conveyor as said counter-current conveyor.

14. The method of claim 1 wherein said biomass also contains solid particulate contaminants, said method further comprising the step of removing said particulate contaminants by vibration of said solvent and biomass in said washing means.

15. The method of claim 4 wherein said biomass also contains solid particulate contaminants, said method further comprising the step of removing said particulate contaminants, by vibration of said solvent and biomass in said washing means.

16. The method of claim 15 further comprising providing an underflow conveyor cooperating with said counter-current extractor for said removing step so as to remove of said particulate contaminant from said washing means.

17. The method of claim 1 wherein said biomass is wood knots coated in chemicals rejected from a pulping process, said method comprising the steps of recovering said chemicals using a minimum flow of solvent, wherein solvent and chemicals pass out of

a washing stage and are transported to a recovery system, whereby cleaned wood knots are made available for use as fuel.

18. The method of claim 5 wherein during said washing of said biomass an additional stream of effluent containing mill sludge is also added into said extractor, whereby fiber in the sludge is retained within the bed of biomass so as to act as a filter, thereby allowing cleaned water from the sludge to pass out of the washing stage along with the washing water.